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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,171	05/31/2001	Mary Lucille DeLucia	KCC-15,135	9932

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EXAMINER	
ROSSI, JESSICA	
ART UNIT	**PAPER NUMBER**
1733	

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/871,171	DELUCIA ET AL.	
	Examiner	Art Unit	
	Jessica L. Rossi	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/3/04, Amendment*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-6,11-17,19,20,23-31,42 and 43* is/are pending in the application.

4a) Of the above claim(s) *23-31* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-6,11-17,19,20,42 and 43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment dated 11/3/04. Claims 44-45 were cancelled. Claims 1-2, 4-6, 11-17, 19-20, 23-31, and 42-43 are pending but claims 23-31 remain withdrawn from further consideration for the reasons set forth in the final office action dated 12/3/03.

2. Support for the thermoplastic limitations added to claim 1 is found in the specification on p. 16, lines 5-6 and p. 20, lines 7-8.

3. The 112 2nd paragraph rejection, set forth in paragraph 9 of the previous office action dated 7/29/04, regarding "differentially shrinking" has been withdrawn in light of the present amendment. **Note in the 4th paragraph on p. 8 of Applicants remarks, Applicant states that "differential shrinking" does not require both layers to be shrunk.**

4. The rejection of the claims as being unpatentable over Breveteam (GB 1293456; of record), as set forth in paragraph 11 of the previous office action, has been withdrawn in light of the present amendment to claim 1; specifically, the non-woven of Breveteam is a paper layer and therefore this reference fails to teach or suggest a thermoplastic non-woven.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 5-6, 11, 16-17, 19-20 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ekdahl (US 5674211) in view of the collective teachings of Schwinn et al. (DE 19523497) and Zelazoski (GB 2284786; of record).

With respect to claim 1, Ekdahl is directed to a method for producing a structured composite material having a plurality of apertures for accommodating passage of fluids through the material (reference teaches making a liquid permeable top sheet for a disposable article – abstract; column 1, lines 10-13). The reference teaches forming a fibrous thermoplastic nonwoven web 3 (column 2, lines 45-46; column 3, lines 45-47), extruding a thermoplastic film 2 having a shrinkage extent onto the nonwoven web (column 1, lines 60-64; column 2, lines 44-45; column 3, lines 32-34 and 42-44), and forming the plurality of apertures through the second layer (column 2, line 62 – column 3, line 34).

The reference is silent as to the nonwoven having a shrinkage extent different from that of the film and differentially shrinking the nowoven and film to increase a bulk of the composite material.

It is known in the art to make a fluid permeable (note "fluid" includes both liquid and gas – see Dictionary) disposable article by forming a composite from a thermoplastic nonwoven web and a thermoplastic film having different shrinkage extents such that differentially shrinking the web and film increases a bulk of the composite thereby improving the softness thereof, as taught by the collective teachings of Schwinn (teaches heating composite to cause film to shrink and nonwoven to shrink significantly less or not at all; abstract, oral translation – column 4, lines 20-27) and Zelazoski (teaches stretching nonwoven, bonding stretched nonwoven to slit film, and then relaxing the tension in the nonwoven to shrink it while simultaneously heating the composite to shrink the film – p. 15, lines 12-22).

Therefore, it would have been obvious to the skilled artisan to use a nonwoven having a shrinkage extent different from that of the film for that of Ekdahl and to differentially shrink the

nonwoven and film because such is known in the art, as taught by the collective teachings of Schwinn and Zelazoski, where this increases the bulk of the composite thereby improving the softness thereof.

Regarding claim 5, both Schwinn and Zelazoski teach heating at least one of the nonwoven and film to affect shrinkage thereof.

Regarding claim 6, selection of a heating method would have been within purview of the skilled artisan.

Regarding claim 11, selection of an aperture size would have been within purview of the skilled artisan depending on the desired degree of fluid permeability. It is noted that Ekdahl and the present invention are both directed to making top sheets for absorbent articles.

Regarding claim 16, Ekdahl teaches the nonwoven comprising polypropylene (column 3, lines 45-47).

Regarding claim 17, selection of a particular thermoplastic film would have been within purview of the skilled artisan depending on the desired properties therof.

Regarding claim 19, it would have been obvious to the skilled artisan to incorporate filler into the film of Ekdahl because such is known in the art, as taught by Zelazoski (p. 6, lines 20-35), where the addition of such allows certain desirable characteristics to be imparted to the film.

Regarding claim 20, selection of particular filler would have been within purview of the skilled artisan depending on the properties to be imparted to the film.

Regarding claims 42-43, the percentage increase in bulk would have been within purview of the skilled artisan depending on the desired softness.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ekdahl and the collective teachings of Schwinn and Zelazoski as applied to claim 1 above, and further in view of Lane (US 3331728).

Regarding claim 4, Ekdahl is silent as to the nonwoven being apertured. It would have been obvious to the skilled artisan to aperture the nonwoven of Ekdahl because it is known in the art to make a liquid permeable disposable article by extruding a thermoplastic film onto an apertured nonwoven web and then forming apertures in the film, as taught by Lane (column 1, lines 9-10; column 2, lines 39-41; column 3, lines 7-20), where the presence of apertures in both the nonwoven and film improves liquid permeability.

8. Claims 1-2, 4-6, 11-17, 19-20 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newman (US 3622434) in view of Wu (US 5422172) and Ekdahl.

With respect to claim 1, Newman is directed to a method for producing a structured composite material having a plurality of apertures for accommodating passage of fluids through the material (abstract; column 4, lines 17-23). The reference teaches forming a thermoplastic nonwoven web 12 having a first shrinkage extent (column 2, lines 2-15), providing a thermoplastic film 10 having a shrinkage extent different from that of the nonwoven (abstract; column 2, lines 33-36), forming a plurality of apertures in the film (column 4, lines 16-23), bonding the film to the nonwoven (column 2, lines 67-71), and differentially shrinking the nonwoven and film to increase a bulk of the composite (abstract; column 3, lines 15-27).

The reference is silent as to extruding the film onto the nonwoven and forming the apertures through the film.

It is known in the art to form a fluid permeable (note "fluid" includes both liquid and gas – see Dictionary) composite by extruding a thermoplastic film onto a thermoplastic nonwoven web and then forming a plurality of apertures in the film, as taught by Wu (column 2, lines 34-42; column 3, lines 15-27).

One reading Newman as a whole would have appreciated that a particular bonding method is not critical the invention (column 2, lines 67-72) and therefore would have been motivated to extrude the film onto the nonwoven and then aperture the film because such is known in the art, as taught by Wu, where direct extrusion onto the nonwoven followed by aperturing eliminates the need to pre-form and store the film while also improving the softness of the composite (see Ekdahl at column 1, lines 60-65).

Regarding claim 2, Wu teaches using mechanical methods to aperture the film (column 3, lines 20-22). Selection of a particular mechanical method would have been within purview of the skilled artisan.

Regarding claim 4, it would have been obvious to form apertures through the nonwoven because this would improve the air permeability of the composite.

Regarding claims 5-6, Newman teaches heating the composite in an oven to affect shrinkage (column 3, lines 20-21).

Regarding claim 11, selection of an aperture size would have been within purview of the skilled artisan depending on the desired degree of fluid permeability.

Regarding claim 12, Newman teaches the film can have slits (column 3, lines 16-18). Therefore, Newman in view of Wu teaches slitting the film after being extruded onto the non-

woven wherein the skilled artisan would have appreciated the slits being opened upon differential shrinking of the composite.

Regarding claim 13, Wu teaches using mechanical methods to aperture the film (column 3, lines 20-22). Selection of a particular mechanical method for forming the slits would have been within purview of the skilled artisan.

Regarding claim 14, selection of a particular orientation for the slits would have been within purview of the skilled artisan.

Regarding claim 15, it would have been obvious to form slits through the nonwoven because this would improve the air permeability of the composite.

Regarding claim 16, Newman teaches the nonwoven comprising polypropylene (column 2, lines 2-8).

Regarding claim 17, selection of a particular thermoplastic film would have been within purview of the skilled artisan depending on the desired characteristics thereof.

Regarding claim 19, it would have been obvious to the skilled artisan to incorporate filler into the film of Newan because such is a notoriously well-known and conventional technique for imparting certain desirable characteristics to a film.

Regarding claim 20, selection of particular filler would have been within purview of the skilled artisan depending the properties to be imparted to the film.

Regarding claims 42-43, the percentage increase in bulk would have been within purview of the skilled artisan depending on the desired softness.

Response to Arguments

9. Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection. The examiner withdrew the Breveteam reference for the reason set forth in paragraph 4 above and has presented newly cited references that do teach a thermoplastic nonwoven.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine R. Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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